

Mr. Terry Martzall
K-T Corporation
850 Elston Drive
Shelbyville, Indiana 46176

Re: 145-12737-00043
Minor Source Modification to
Part 70 permit No.: 145-7557-00043

Dear Mr. Martzall:

K-T Corporation was issued Part 70 operating permit T145-7557-0043 on December 28, 1998 for a stationary aluminum metal aircraft and travel trailer parts fabrication plant. An application to modify the source was received on September 20, 2000. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for increased operation at the source:

One (1) spray booth, equipped with one (1) air atomization spray gun for coating of aluminum exterior aircraft parts, using water wall spray booth filters for overspray control and exhausting to stack S-B-01.

This spray booth was included in the Title V permit as an insignificant activity. However, expected increased use of the spray booth has prompted K-T Corporation to request that the Title V permit be modified to include the spray booth as a significant activity.

The proposed operating conditions applicable to these emission units are attached to this Source Modification approval. These proposed operating conditions shall be incorporated into the Part 70 operating permit as an administrative amendment in accordance with 326 IAC 2-7-10.5(1)(1) and 326 IAC 2-7-11.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. Pursuant to Contract No. A305-0-00-36, IDEM, OAM has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Kate Huckelbridge, ERG, P.O. Box 2010, Morrisville, North Carolina 27560, or call (919) 468-7902 to speak directly to Mrs. Huckelbridge. Questions may also be directed to Duane Van Laningham at IDEM, OAM, 100 North

K-T Corporation, A Triumph Group Co.
Shelbyville, Indiana
Permit Reviewer: ERG/KH

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Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments

ERG/KH

cc: File - Shelby County
U.S. EPA, Region V
Shelby County Health Department
Air Compliance Section Inspector - D. J. Knotts
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

**PART 70 OPERATING PERMIT
OFFICE OF AIR MANAGEMENT**

**K-T Corporation, A Triumph Group Company
850 Elston Drive
Shelbyville, Indiana 46176**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T 145-7557-00043	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Management	Issuance Date: December 28, 1998

First Minor Source Modification 145-12737-00043	Pages Affected: 2, 28a, 28b, 29
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary aluminum metal aircraft and travel trailer parts fabrication plant.

Responsible Official: Don Kendall Source
Address: 850 Elston Drive, Shelbyville, Indiana 46176
Mailing Address: 850 Elston Drive, Shelbyville, Indiana 46176
SIC Code: 3721-3792
County Location: Shelby County
Status: Attainment for all criteria pollutants
Source Status: Part 70 Permit Program Minor Source,
under PSD Rules Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (1) One (1) Bardon-Blakesley chilled closed top perchloroethylene degreaser (ID #DG-01), installed in 1978, with a daily solvent consumption of 103.3 gallons per day, with perchloroethylene emissions controlled by a refrigerated coil vapor recovery system exhausting at one (1) stack, identified as #DG-01.
- (2) One (1) spray booth, equipped with one (1) air atomization spray gun for coating of aluminum exterior aircraft parts, using water wall spray booth filters for overspray control and exhausting to stack S-B-01.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (1) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] Insignificant Activities

- (2) One (1) spray booth, equipped with one (1) air atomization spray gun for coating of aluminum exterior air craft parts using water wall spray booth filters for overspray control and exhausting to Stack 5-B-01.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the spray booth shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.2.2 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

Potential to emit of VOC from the paint booth is less than 25 tons per year. Therefore, 326 IAC 8-1-6 will not apply. Any change or modification which may increase the potential emissions to 25 tons per year or more of volatile organic compounds must be approved by the office of Air Management before any such change may occur.

Compliance Determination Requirements

D.2.3 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the particulate matter limit specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.2.4 Particulate Matter (PM)

In order to comply with D.2.1, the water wall spray booth filters for PM control shall be in operation and control emissions from the spray booth at all times when the spray booth is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

There are no Compliance Monitoring requirements applicable to this facility.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.5 Record Keeping Requirements

- (a) To document compliance with Condition D.2.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.2.2.

- (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;
 - (3) The cleanup solvent usage for each month;
 - (4) The total VOC usage for each month; and
 - (5) The weight of VOCs emitted for each month.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

Insignificant Activities: The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the welding equipment shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Compliance Determination Requirements

D.3.2 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the particulate matter limit specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

There are no Compliance Monitoring requirements applicable to this facility.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

There are no Record Keeping and Reporting requirements applicable to this facility.

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Part 70 Minor Source Modification

Source Background and Description

Source Name:	K-T Corporation
Source Location:	850 Elston Drive, Shelbyville, Indiana 46176
County:	Shelby
SIC Code:	3499
Operation Permit No.:	T 145-7557-00043
Operation Permit Issuance Date:	December 28, 1998
Minor Modification No.:	145-12737-00043
Permit Reviewer:	ERG/KH

The Office of Air Management (OAM) has reviewed a modification application from K-T Corporation relating to the increased operation of the following emission units and pollution control devices:

One (1) spray booth, equipped with one (1) air atomization spray gun for coating of aluminum exterior aircraft parts, using water well spray booth filters for overspray control and exhausting to stack S-B0-01.

History

On September 20, 2000, K-T Corporation submitted an application to the OAM requesting to include their spray booth as a significant activity in their Title V permit. K-T Corporation was issued a Part 70 permit on December 28, 1998. In this permit, the spray booth is included as an insignificant unit. However, due to expected increased use of the spray booth, K-T Corporation requested to modify their Title V permit to include the spray booth as a significant unit.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on September 20, 2000. Additional information was received on November 28, 2000.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (i.e., pages 1 and 2).

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	6.43
PM-10	-
SO ₂	-
VOC	16.31
CO	-
NO _x	-

HAP's	Potential To Emit (tons/year)
xylene	0.24
toluene	2.37
glycol ether	0.69
methyl isobutyl ketone	0.03
tetrachloroethylene	7.75
TOTAL	11.08

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(d)(4) for modifications with a potential to emit within the limits listed in (d)(4).

County Attainment Status

The source is located in Shelby County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Shelby County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Shelby County has been classified as attainment or unclassifiable for all pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	less than 100
PM-10	less than 100
SO ₂	less than 100
VOC	less than 100
CO	less than 100
NO _x	less than 100

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Paint Booth	6.43	--	--	16.31	--	--	11.08

This modification to an existing major stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) 326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability - Individual Facilities

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

326 IAC 8-1-6 does not apply to this facility because the paint booth has a potential to emit VOC less than 25 tons per year.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), does not apply because the spray booth is used to coat external aircraft parts. External aircraft parts are specifically exempt from this rule (326 AC 8-2-9(b)(2)).

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the paint booth shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The water wall spray booth filters shall be in operation at all times the paint booth is in operation, in order to comply with this limit.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Proposed Changes

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (1) One (1) Bardon-Blakesley chilled closed top perchloroethylene degreaser (ID #DG-01), installed in 1978, with a daily solvent consumption of 103.3 gallons per day, with perchloroethylene emissions controlled by a refrigerated coil vapor recovery system exhausting at one (1) stack, identified as #DG-01.
- (2) One (1) spray booth, equipped with one (1) air atomization spray gun for coating of aluminum exterior aircraft parts, using water wall spray booth filters for overspray control and exhausting to stack S-B-01.

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (2) One (1) spray booth, equipped with one (1) air atomization spray gun for coating of aluminum exterior air craft parts using water wall spray booth filters for overspray control and exhausting to Stack 5-B-01.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the spray booth shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.2.2 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

Potential to emit of VOC from the paint booth is less than 25 tons per year. Therefore, 326 IAC 8-1-6 will not apply. Any change or modification which may increase the potential emissions to 25 tons per year or more of volatile organic compounds must be approved by the office of Air Management before any such change may occur.

Compliance Determination Requirements

D.2.3 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the particulate matter limit specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.2.4 Particulate Matter (PM)

In order to comply with D.2.1, the water wall spray booth filters for PM control shall be in operation and control emissions from the spray booth at all times when the spray booth is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

There are no Compliance Monitoring requirements applicable to this facility.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.5 Record Keeping Requirements

- (a) To document compliance with Condition D.2.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.2.2.
 - (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;
 - (3) The cleanup solvent usage for each month;
 - (4) The total VOC usage for each month; and
 - (5) The weight of VOCs emitted for each month.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.23

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

Insignificant Activities: The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.23.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the welding equipment shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour;
and
P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Compliance Determination Requirements

D.23.2 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the particulate matter limit specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

There are no Compliance Monitoring requirements applicable to this facility.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

There are no Record Keeping and Reporting requirements applicable to this facility.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 089-12737-00043.

Appendix A: Emissions Calculations

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VOC and Particulate
From Surface Coating Operations

Company Name: K-T Corp
Address City IN Zip: 850 Elston Drive, Shelbyville, IN 46176
CP: 12737
Plt ID: 00043
Reviewer: ERG/KH
Date: 11/28/2000

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
AC-850-TOL	8.3	72.00%	0.0%	72.0%	0.0%	28.00%	0.09500	1.000	6.00	6.00	0.57	13.69	2.50	0.68	21.45	30%
AC-854/AC 850 CH	11.8	84.00%	0.0%	84.0%	0.0%	16.00%	0.18900	1.000	9.88	9.88	1.86	44.57	8.13	1.08	61.74	30%
AC-951 Water Based Maskant	9.2	90.00%	84.0%	6.0%	84.0%	10.00%	0.03100	1.000	3.44	0.55	0.02	0.41	0.07	0.09	5.50	30%
ARDROX 306-N	8.5	29.00%	19.0%	10.0%	19.0%	71.00%	0.00300	1.000	1.05	0.85	0.00	0.06	0.01	0.06	1.20	30%
AZ 645	8.6	77.00%	71.0%	6.0%	71.0%	23.00%	0.01800	1.000	1.78	0.52	0.01	0.22	0.04	0.11	2.24	30%
ARDROX 321 N	8.7	22.50%	12.5%	10.0%	12.5%	77.50%	0.17400	1.000	0.99	0.87	0.15	3.62	0.66	3.58	1.12	30%
Blend Solvent LS-66	6.9	100.00%	0.0%	100.0%	0.0%	0.00%	0.00600	1.000	6.92	6.92	0.04	1.00	0.18	0.00	ERR	30%
MAC-COOL HD	7.5	80.00%	0.0%	80.0%	0.0%	20.00%	0.17900	1.000	6.01	6.01	1.08	25.81	4.71	0.82	30.04	30%

State Potential Emissions

Add worst case coating to all solvents

3.72

89.38

16.31

6.43

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

surcoat.wk4 9/95

**Appendix A: Emission Calculations
HAP Emission Calculations**

Page 2 of 2 TSD AppA

**Company Name: K-T Corp
Address City IN Zip: 850 Elston Drive, Shelbyville, IN 46176
CP#: 12737
Plt ID: 00043
Permit Reviewer: ERG/KH
Date: 11/28/2000**

Material	Density (Lb/Gal)	Gallons of Material (gal/hour)	Weight % Xylene	Weight % Toluene	Weight % Glycol Ether	Weight % Hexone	Weight % Perchloroethylene	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Glycol Ether Emissions (ton/yr)	Hexone Emissions (ton/yr)	Perchloroeth ylene Emissions (ton/yr)
AC-850-TOL	8.3	0.09500	7.00%	65.00%	0.00%	0.00%	0.00%	0.24	2.26	0.00	0.00	0.00
AC-854/AC 850 CH	11.8	0.18800	0.00%	0.00%	0.00%	0.00%	80.00%	0.00	0.00	0.00	0.00	7.75
AC-951 Water Based Maskant	9.2	0.03100	0.00%	0.00%	2.00%	0.00%	0.00%	0.00	0.00	0.02	0.00	0.00
ARDROX 306-N	8.5	0.00300	0.00%	10.00%	0.00%	0.00%	0.00%	0.00	0.01	0.00	0.00	0.00
AZ 645	8.6	0.01800	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
ARDROX 321 N	8.7	0.17400	0.00%	0.00%	10.00%	0.00%	0.00%	0.00	0.00	0.66	0.00	0.00
Blend Solvent LS-66	6.9	0.00600	0.00%	54.00%	0.00%	18.00%	0.00%	0.00	0.10	0.00	0.03	0.00
MAC-COOL HD	7.5	0.17900	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00

Total State Potential Emissions

0.24 2.37 0.69 0.03 7.75

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Hapcalc.wk4 9/95